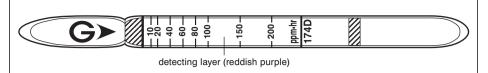
Dosi-tube

# 1,3-Butadiene CH2:CHCH:CH2 No.174D



### Performance

Measuring range	1.3 to 200 ppm		
Sampling time	1 to 8 hours		
Colour change :	Reddish purple → Pale brown		
Corrections for temperature & humidity : Temperature correction is necessary.			

Corrections for temperature & humidity :	Temperature correction is necessary.
Relative standard deviation :	10 % (for 10 to 200 ppm · hr)
Shelf life :	2 years

### Reaction principle

CH<sub>2</sub>:CHCH:CH<sub>2</sub> + MnO<sub>4</sub>(Reddish purple)  $\rightarrow$  Pale brown product

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Unsaturated hydrocarbons		+	Pale brown

## Other substances measurable with this Dosi-tube

Substance	Correction	Sampling time	Measuring range
Ethylene	Factor : 1.2	)	1.5 to 240 ppm
Isoprene	Factor : 2.0	1 to 8 hours	2.5 to 400 ppm
trans-1,2-Dichloroethylene	Factor : 3.0		3.8 to 600 ppm
Vinyl chloride	Factor : 1.2	J	1.5 to 240 ppm

## Calibration gas generation

Permeation tube method